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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,725	07/12/2001	Danny Marvin Neal	AUS920010488US1	9319
35525	7590	11/17/2004	EXAMINER	
IBM CORP (YA)			JEAN GILLES JUDE	
C/O YEE & ASSOCIATES PC			ART UNIT	
P.O. BOX 802333			PAPER NUMBER	
DALLAS, TX 75380			2143	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/903,725

Applicant(s)

NEAL ET AL.

Examiner

Jude J Jean-Gilles

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is responsive to communication filed on 07/12/2001.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-12, 17, 19, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1: Claim 1 recites the limitation " the host" in line 13. There is insufficient antecedent basis for this limitation in the claim.

Regarding claims 2-12: Claims 2-12 depend on **claim 1** and are rejected by the same rationale.

Regarding claim 17: Claim 17 recites the limitation " the host" in line 16. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 19: Claim 19 recites the limitation " the host" in line 28. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 21: Claim 1 recites the limitation " the host" in line 6. There is insufficient antecedent basis for this limitation in the claim.

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Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-8, and 10-22 are rejected under 35 U.S.C. 102(e) as being unpatentable by Dearth et al (U.S. Patent No. 6,744,765 B1).

Regarding **claim 1**: Dearth et al teach a method, operable in a data processing system having a plurality of processes connection (*column 1, lines 52-58*), for performing a communication connection (*fig. 1, items 1-13; column 2, lines 53-57*), comprising the steps of:

 sending a communication management request from a first process within the plurality of processes via a communication establishment message to an adapter associated with a second process within the plurality of processes connection (*column 2, lines 57-66*);

 retrieving the communication establishment request, under control of the adapter, via the communication establishment message from the host connection (*column 2, lines 56-67; column 3, lines 1-2, 29-33*); and

 responsive to the second process within the plurality of processes allowing the communication management request, initiating, under control of the adapter, multiple

communication connections and unreliable datagram resolutions (*column 6, lines 4-6; column 2, lines 19-23; it is important to note that in a data gram-based network , a sequence of packets from a source host to a destination host may take different path*).

Regarding **claim 2**: Dearth et al teach the method as recited in claim 1, wherein the first process within the plurality of processes is an active side of the process (*fig. 2, item 11; column 5, lines 62-67*).

Regarding **claim 3**: Dearth et al teach the method as recited in claim 1, wherein the second process within the plurality of processes is a passive side of the process (*fig. 2, item 13; column 5, lines 62-67*).

Regarding **claim 4**: Dearth et al teach the method as recited in claim 1, further comprising:

posting the communication establishment request for multiple communication connections and unreliable datagram resolutions to a send queue of a queue pair associated with the first process within the plurality of processes as a work request (*column 4, lines 26-39*); and

requesting communication for multiple connections and unreliable datagram resolutions between a first host channel adapter and a second host channel adapter using a communication establishment message in the communication management request (*column 4, lines 45-54*).

Regarding **claim 5**: Dearth et al teach the method as recited in claim 4, wherein the first host channel adapter is a host channel adapter (*column 2, lines 57-63*).

Regarding **claim 6**: Dearth et al teach the method as recited in claim 4, wherein the second host channel adapter is a destination host channel adapter (*column 2, lines 63-67, column 3, lines 1-2*).

Regarding **claim 7**: Dearth et al teach the method as recited in claim 4, further comprising:

converting the multiple connections and unreliable datagram resolutions work requests into a work queue element by a channel interface (*column 3, lines 9-11*); and

placing the multiple connections and unreliable datagram resolutions work queue element on an active side communication management service send queue (*column 3, lines 11-14*).

Regarding **claim 8**: Dearth et al teach the method as recited in claim 1, further comprising:

determining the first process within the plurality of processes has received a multiple connections and unreliable datagram resolutions reply message from the second process (*column 3, lines 14-18*) within a specified period of time (*column 9, lines 40-47*);

passing the multiple connections and unreliable datagram resolutions reply message to the first process within the plurality of processes (*column 6, lines 30-34*);
and

processing the multiple connections and unreliable datagram resolutions reply message (*column 3, lines 14-18*).

Regarding **claim 10**: Dearth et al teach the method as recited in claim 1, further comprising:

responsive to a multiple connections and unreliable datagram resolutions reply message being received by the first process within the plurality of processes, creating a multiple connections and unreliable datagram resolutions communication management message (*column 6, lines 4-9; column 2, lines 19-23*); and

posting the multiple connections and unreliable datagram resolutions communication management message as a work request on a communication management send queue associated with the first process within the plurality of processes (*column 6, lines 1-19*).

Regarding **claim 11**: Dearth et al teach the method as recited in claim 10, wherein the multiple connections and unreliable datagram resolutions communication management message is a multiple connections and unreliable datagram resolutions "ready to use" communication management message (*column 6, lines 9-19*).

Regarding **claim 12**: Dearth et al teach the method as recited in claim 10, further comprising:

converting, by a channel interface, the multiple connections and unreliable datagram resolutions work request into a work queue element (*column 6, lines 9-14*);

processing, by a channel adapter, the work request (*column 6, lines 9-14*); and
sending the multiple connections and unreliable datagram resolutions communication management message to the second process within the plurality of processes (*column 6, lines 20-26*).

Regarding **claim 13**: Dearth et al teach a method, operable in a data processing system having a plurality of processes, for performing a multiple connections and unreliable datagram resolutions communication connection, comprising the steps of:

receiving a communication management request from a first process within the plurality of processes via a communication establishment request for multiple connections and unreliable datagram resolutions message to an adapter associated with a second process within the plurality of processes (*fig. 2, item 6-7, 11, and 13; column 2, lines 19-23; column 7, lines 61-67; column 8, lines 1-4*);

sending a multiple connections and unreliable datagram resolutions reply communication establishment message, under control of the adapter, to the first process within the plurality of processes (*column 6, lines 20-26*); and

responsive to the second process within the plurality of processes receiving the multiple connections and unreliable datagram resolutions reply communication establishment message from the first process within the plurality of processes, establishing multiple communication connections between the first process within the plurality of processes and the second process within the plurality of processes (*column 6, lines 23-38*).

Regarding **claim 14**: Dearth et al teach the method as recited in claim 13, further comprising:

placing the multiple connections and unreliable datagram resolutions communication establishment request message in a receive queue of communication

manager associated with the second process within the plurality of processes (fig. 2, item 14b; *column 3, lines 9-14*); and

passing the multiple connections and unreliable datagram resolutions communication establishment request message to the second process within the plurality of processes (*column 3, lines 24-29*).

Regarding **claim 15**: Dearth et al teach the method as recited in claim 13, further comprising:

posting the multiple connections and unreliable datagram resolutions reply communication establishment message as a work request on a communication management send queue associated with the second process within the plurality of processes (*column 3, lines 9-14*); and

converting the work request into a work queue element by a channel interface (*column 4, lines 31-39*).

Regarding **claim 16**: Dearth et al teach the method of claim 13, wherein the multiple connections and unreliable datagram resolutions are considered established when the passive side receives one of a message from at least one established connection and a "ready to use" message (*column 4, lines 31-39*).

Regarding **claim 17**: Dearth et al teach a system, comprising:
a bus system (*column 2, lines 44-57; fig. 1, items 11, and 13*);
a communications unit connected to the bus system (*fig. 1, items 1-2*);
a memory, including a set of instructions, connected to the bus system (*fig. 1, items 8-9*); and

a processing unit connected to the bus system, wherein the processing unit includes at least one processor, wherein the processing unit executes the set of instructions to send a communication management request, via the communications unit, from a first process within the plurality of processes via a communication establishment message to an adapter associated with a second process within the plurality of processes (*fig. 1, items 10-12; column 4, lines 14-21; column 5, lines 5-8*) retrieve the communication establishment request, under control of the adapter, via the communication establishment message from the host (*column 2, lines 56-57; column 3, lines 1-2; column 3, lines 29-33*), and responsive to the second process within the plurality of processes allowing the communication management request, initiates, under control of the adapter, multiple communication connections and unreliable datagram resolutions(*column 6, lines 4-6; column 2, lines 19-23; it is important to note that in a data gram-based network , a sequence of packets from a source host to a destination host may take different path*).

Regarding **claim 18**: Dearth et al teach a system, comprising:

a bus system (*column 2, lines 44-57; fig. 1, items 11, and 13*);

a communications unit connected to the bus system (*fig. 1, items 1-2*);

a memory, including a set of instructions, connected to the bus system (*fig. 1, items 8-9*); and

a processing unit connected to the bus system, wherein the processing unit includes at least one processor, wherein the processing unit executes the set of instructions to receive a communication management request, via the communications

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unit, from a first process within the plurality of processes via a communication establishment request message to an adapter associated with a second process within the plurality of processes (*fig. 1, items 10-12; column 4, lines 14-21; column 5, lines 5-8*), sends a reply communication establishment message, under control of the adapter, to the first process within the plurality of processes, and responsive to the second process within the plurality of processes receiving the reply communication establishment message from the first process within the plurality of processes (*column 2, lines 57-66*), establishes multiple communication connections and unreliable datagram resolutions between the first process within the plurality of processes and the second process within the plurality of processes (*column 2, lines 19-23, column 5, lines 5-8*).

Regarding **claim 19**: Dearth et al teach a system, operable in a data processing system having a plurality of processes (*column 1, lines 52-58*), for performing a communication connection (*fig. 1, items 1-13; column 2, lines 53-57*), comprising:

sending means for sending a multiple connections and unreliable datagram resolutions communication management request from a first process within the plurality of processes via a communication establishment message to an adapter associated with a second process within the plurality of processes (*column 2, lines 57-66*);

retrieving means for retrieving the multiple connections and unreliable datagram resolutions communication establishment request, under control of the adapter, via the communication establishment message from the host (*column 2, lines 56-67; column 3, lines 1-2, 29-33*); and

initiating means, responsive to the second process within the plurality of processes allowing the communication management request, for initiating, under control of the adapter, multiple communication connections and unreliable datagram resolutions (*column 6, lines 4-6; column 2, lines 19-23; it is important to note that in a data gram-based network, a sequence of packets from a source host to a destination host may take different path*).

Regarding **claim 20**: Dearth et al teach a system, operable in a data processing system having a plurality of processes, for performing a communication connection, comprising:

receiving means for receiving a multiple connections and unreliable datagram resolutions communication management request from a first process within the plurality of processes via a communication establishment request message to an adapter associated with a second process within the plurality of processes (*fig. 2, item 6-7, 11, and 13; column 2, lines 19-23; column 7, lines 61-67; column 8, lines 1-4*);

sending means for sending a multiple connections and unreliable datagram resolutions reply communication establishment message, under control of the adapter, to the first process within the plurality of processes (*column 6, lines 20-26*); and

establishing means, responsive to the second process within the plurality of processes receiving the reply communication establishment message from the first process within the plurality of processes, for establishing multiple communication connections and unreliable datagram resolutions between the first process within the

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plurality of processes and the second process within the plurality of processes (*column 6, lines 23-38*)

Regarding **claim 21**: Dearth et al teach a computer program product in a computer-readable medium for performing a communication connection (*column 6, lines 9-14*), comprising:

instructions for sending a multiple connections and unreliable datagram resolutions communication management request from a first process within the plurality of processes via a communication establishment message to an adapter associated with a second process within the plurality of processes (*column 5, lines 5-9*);

instructions for retrieving the multiple connections and unreliable datagram resolutions communication establishment request, under control of the adapter, via the communication establishment message from the host (*column 5, lines 10-25*); and

instructions, responsive to the second process within the plurality of processes allowing the communication management request, for initiating, under control of the adapter, multiple communication connections and unreliable datagram resolutions (*column 6, lines 4-14*).

Regarding **claim 22**: Dearth et al teach a computer program product in a computer-readable medium for performing a communication connection (*column 6, lines 9-14*), comprising:

instructions for receiving a multiple connections and unreliable datagram resolutions communication management request from a first process within the plurality

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of processes via a communication establishment request message to an adapter associated with a second process within the plurality of processes;

instructions for sending a multiple connections and unreliable datagram resolutions reply communication establishment message, under control of the adapter, to the first process within the plurality of processes (*column 6, lines 14-19*); and

instructions, responsive to the second process within the plurality of processes receiving the reply communication establishment message from the first process within the plurality of processes, for establishing multiple communication connections and unreliable datagram resolutions between the first process within the plurality of processes and the second process within the plurality of processes (*column 6, lines 14-19*).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dearth et al (U.S. 6,744,765 B1) in view of Boucher et al (U.S. 6,247,060 B1).

Regarding claim 9: Dearth et al disclose the invention substantially as claimed.

Dearth et al teach the method as recited in claim 1, further comprising:

determining the first process within the plurality of processes has not received a multiple connections and unreliable datagram resolutions reply message from the second process within a specified period of time (*column 9, lines 40-47*); and

However Dearth et al is silent on the step of aborting a multiple connections and unreliable datagram resolutions communication establishment process.

In the same field of endeavor Boucher et al disclose a multiple connections and unreliable datagram with the ability to force the context back off the INIC, since IRPs will only get cancelled when a connection is being aborted" (*column 37, 57-62*).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Boucher et al's teachings of aborting a multiple connection with the teachings of Dearth et al, for the purpose of minimizing overhead and significantly improve system performance as stated by Dearth et al in lines 19-23 of column 2.

Conclusion

7. Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914. The examiner can normally be reached on Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3719.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Jude Jean-Gilles
Patent Examiner
Art Unit 2143

JJG

November 12, 2004

William C. Vaughn
Primary Examiner
Art Unit 2143
William C. Vaughn, Jr.